



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

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DATE: April 18, 1984

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TO: Division File

FROM: P. M. McCarthy *PMM*

SUBJECT: LPC 11780201 - Macoupin County - Brighton/Brighton Landfill #1
LPC 11780203 - Macoupin County - Brighton/Brighton Landfill #2
ILD000667139

File
NPDES
Environmental Protection Agency
Division of Water Pollution Control
Permit Section-Springfield
State of Illinois

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Since the March 22, 1984 ISS Inspection of this facility, this writer has spent considerable time and effort toward clarifying several points concerning alleged violations. One of those areas deals with the discharge of collected runoff. (Subtitle G, Subpart N, 725.402(b)).

I have discussed this point with Bob Stone, USEPA, Illinois State Implementation Officer and also consulted the May 19, 1980 Federal Register. Referring to page 33211, (copy attached), it states that "if collected run-off is discharged to waters of the United States, owners or operators of facilities must have or apply for an NPDES permit under the Clean Water Act". Since I have not been able to determine the existence of any language to the contrary, I must recommend that this facility be required to "have or apply for an NPDES permit".

PMM:jlr

cc: Bill Seltzer
Tom McSwiggin - WPC ✓
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ditches, culverts, or dikes. The capacity of diversion structures should be determined by the owner or operator considering site topography, size of drainage area, and size of the active portions.

Comments were received suggesting that the proposed standards be modified to allow the owner or operator the flexibility to either divert surface water run-on or collect and treat all of the surface run-off, as long as Clean Water Act effluent limitations were complied with. The Agency disagrees. EPA believes that such a standard allows the unnecessary infiltration of water into the landfill.

The Agency has determined that diversion of run-on is appropriate for inclusion in the interim status standards. Run-on control is for active portions only. The Agency expects that run-on diversion structures, where needed because of topography, will most likely be earthen dikes or berms, or ditches, which can be erected with earth moving equipment commonly found at landfills. These structures can be temporary, and can move with the active portions as material is added to the landfill. Such structures can be designed and maintained adequately during interim status without case-by-case review by permitting officials.

A 12 month delay is allowed for compliance with this requirement so that operators will have adequate time to make any necessary topographic and hydrologic determinations and complete construction.

3. Contaminated Surface Water Run-Off. Requirements for collecting and managing contaminated surface water run-off were not included in the proposed interim status standards, but were proposed in the general standards in §§ 250.43(c) and 250.45-2(b)(8). Their objective was to reduce the potential for off-site migration of contaminated run-off to land or to waters of the United States. There have been a number of damage incidents caused by mismanaged or uncontrolled contaminated run-off from landfills. Ten of these incidents are briefly described and referenced in the landfill background document. These damage cases demonstrate that run-off from active portions of hazardous waste landfills can cause serious adverse impacts to land and surface waters. In contaminating streams, run-off from landfills frequently results in fishkills and destruction of other aquatic life. During the period 1963-1974, forty-seven separate fishkills caused by run-off from waste disposal were recorded by EPA. Based on this evidence, EPA believes that it is imperative that run-off from

active portions of hazardous waste landfills be controlled during the interim status period.

Furthermore, control of run-off from active portions of hazardous waste landfills is presently a widely accepted and relatively simple practice. As of January 1979, all but two States specifically require in their solid or hazardous waste regulations control of run-off from at least the active portions of all off-site landfills.

Run-off control is accomplished by (1) minimizing run-off and (2) collecting and managing run-off from active portions. Run-off is minimized by (1) preventing run-on, (2) minimizing the size of the active portion, and (3) preventing disposal of liquid wastes in the landfill.

There are two basic types of landfill operations: trench method and area fill method. By design, almost all trenches, and area fills using depressions or pits, control most run-off because of surface contours (i.e., liquids that come into contact with the waste generally infiltrate rather than run-off). Area fills which do not use depressions can be operated by building a berm or dike on the low elevation side to contain any run-off. However, when landfills using either the trench or area methods become large and substantially above grade, both run-off and leachate seeps, which often occur on the outer slopes of the fill, need to be collected. Run-off which does emerge from active portions may be collected by ditches, berms, dikes, and culverts which direct it (sometimes by sump pump) to surface impoundments, basins, tanks, or treatment facilities. These collection devices may consist of temporary structures around active portions. Since run-off usually has been in contact with waste or leachate seeps from active portions, and since run-off sometimes if collected via a leachate collection system, it is usually contaminated. Thus, it is usually impossible to differentiate between rainwater run-off and leachate run-off at the active portion of a landfill. Because of this, the proposed definition of "run-off", which was "that portion of precipitation that drains over land . . .", has been revised to "any rainwater, leachate, or other liquid that drains over land . . .". This change indicates that more than just precipitation must be collected.

Once collected, a number of options exist for treating and disposing of run-off. These are the same options which exist for managing liquid wastes and leachate and include deep well injection, land treatment, treatment in surface impoundments (evaporation, aeration, chemical treatment, etc.), dewatering or mixing with an absorbent

material and disposal in the landfill, percolation through a filtering or attenuation medium (e.g., charcoal, clay soil, sand), or discharge to a sewer or other treatment facility.

The proposed landfill standards required that if surface water came into contact with the active portions of a facility, it was to be collected and managed as a hazardous waste unless it was analyzed and found not to be hazardous.

The Agency received essentially no objections to the proposed requirements that landfill run-off be collected and treated in some fashion. Most of the comments on the proposed standards concerned the capacity of the treatment systems or the final disposition of the run-off. These comments are discussed in the background document. The current regulation does not limit the method of treatment of run-off.

The regulation requires run-off from active portions to be collected. The collected run-off is a solid waste from an industrial activity (the operation of the landfill) and the owner or operator must determine whether it is a hazardous waste in accordance with Section 262.11 of this Chapter. If the collected run-off is a hazardous waste, it must be managed as a hazardous waste. Even if it is not a hazardous waste, good management practices may still require some degree of treatment or use of other techniques as previously discussed, although such practices are not required by these regulations. A 12 month delay for compliance with these regulations is given so that existing facilities may construct new run-off control systems, upgrade existing systems, including those for run-off treatment and disposal. If collected run-off is discharged to waters of the United States, owners or operators of facilities must have or apply for an NPDES permit under the Clean Water Act.

4. Wind Dispersal. Dispersal of landfilled hazardous wastes by wind is not often a problem. The Agency's major concern in requiring the control of wind dispersal is large waste piles which constitute disposal and thus come under the landfill regulations. The Agency is aware of at least one case in which wind dispersal from a pile of asbestos wastes created a health risk. It therefore seems prudent to require that, where landfilled hazardous waste is subject to wind dispersal, the landfill be managed so that wind dispersal is controlled. Appropriate methods may vary from waste to waste, and the Agency believes that the owner or operator of the facility is best able to develop an adequate, cost-effective technique to meet this requirement.